

**DETAILED ACTION**

***Reopen after BPAI Decision***

1. In view of the BPAI decision on 07/24/2012, PROSECUTION IS HEREBY REOPENED as following:

- Claims 1-11 and 21-28 rejections under 112, first and second paragraph are withdrawn;
- Claims 1-7, 10, 11 and 29-34 rejections under 35 USC 103(a) are withdrawn;
- Claims 12-20 and 35-38 rejections under 35 USC 103(a) are withdrawn;
- Claims 11, 20 and 29-38 are rejected under 35 USC 101 to be discussed in the following section.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously

paid, then appellant must pay the difference between the increased fees and the amount previously paid.

The following is the current status of claims:

- Claims 1-38 are pending for examination with claims 1, 12, 21, 29 and 35 being independent claims.

***Specification***

Title of the Invention: The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. See 37 CFR 1.72(a) and MPEP § 606.

The following title is suggested: "EMBEDDING AND EXTRACTING INFORMATION IN IMAGES WITH HALFTONE SCREENING AND BITMAP".

***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 11, 20 and 29-38 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based upon consideration of all the relevant factors with respect to the claim as a whole, claims 11, 20 and 29-38 are held to claim including ineligible transitory signals due to the fact that the specification is silent with regard to the definition of a "computer readable storage medium", and are

therefore rejected as ineligible subject matter under 35 U.S.C. §101. The rational for this finding is explained below:

The specification does not provide definition of "computer-readable medium". In particular, the specification is silent about the possible transitory medium in the embodiments. For instance, Figure 1 discloses a network in which the computer system communicates with a plurality of network entities, e.g., a print device, a scanner device and to a network, etc., and the network communication includes transitory medium such signal. Thus, based on the broadest reasonable interpretation, a "computer-readable medium" does include a transitory medium and a transitory medium does not fall within the statutory categories of 35 USC 101 (i.e., process, machine, manufacture, or composition of matter), so the claims are ineligible. With respect to claims 11 and 20, an article comprising memory encoded with a program. In view of the specification, "computer" program can be stored in the "article" such as the memory 514 of Figure 5, or such as external removable media (Par. 45, US 2005/0094844), and therefore, the "article" is a form of "computer-readable medium". Thus, claims 11 and 20 are also including a transitory medium discussed above.

The claims are rejected under 35 U.S.C. 101 as covering non-statutory subject matter. See *In re Nuijten*, 500 F.3d 1346, 1356-57 (Fed. Cir. 2007) (transitory embodiments are not directed toward statutory subject matter) and Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35 U.S.C. 101, Aug. 24, 2009; p. 2.

Claims 30-34 depend from claim 29, and claims 36-38 depend from claim 35.

Claims 30-34 and 36-38 are rejected under 101 because of their respective dependencies.

As indicated in the Office Gazette notice, the term "non-transitory" can be used in the claim to exclude ineligible signal embodiments and make the claim eligible under 101.

#### ***Allowable Subject Matter***

4. Claims 1-10, 12-19, and 21-28 are allowable subject matter.

The closest prior arts in the record, namely, **Curry (US 5,710,636) in view of Tai et al (Tai) (US 7,218,420) and Wang et al (Wang) (US 5,337,361)**, alone or combined does not teach the claim features reciting, "producing blocks of an output halftone image from ones of the contone image blocks and ones of the graphical code word symbols in accordance with the values of respective ones of the bits of the bi-level bitmap, wherein ones of the output halftone image blocks associated with respective ones of the bits having the first value are derived from respective ones of the contone image blocks and ones of the output halftone image blocks associated with respective ones of the bits having the second value are derived from respective ones of the graphical code word symbols" as cited in claim 1.

The closest prior arts in the record, namely, **Wang (US 6,252,971) in view of Curry (US 5,710,636) and further in view of Wang et al (Wang) (US 5,337,361)**,

alone or combined does not teach the claim features reciting, "using the bitmap to select at least some of the blocks; identifying a code word sequence in the selected blocks; and extracting the information from the code word sequence" as cited in claim 12.

The closest prior arts in the record, namely, Curry (US 5,710,636) in view of Tai et al (Tai) (US 7,218,420) and Wang et al (Wang) (US 5,337,361), alone or combined does not teach the claim features reciting, "producing blocks of an output halftone image from ones of the contone image blocks and ones of the graphical code word symbols in accordance with the values of respective ones of the bits of the bi-level bitmap, wherein ones of the output halftone image blocks associated with respective ones of the bits having the first value are derived from respective ones of the contone image blocks and ones of the output halftone image blocks associated with respective ones of the bits having the second value are derived from respective ones of the graphical code word symbols; and the decoder being operable to perform operations comprising determining a second bi-level bit map of bits from a graylevel value, wherein each of the bits of the second bi-level bit map has a respective one of two different values, partitioning a version of the output halftone image into a plurality of ~~second~~ partitioned halftone image blocks, selecting ones of the partitioned halftone image blocks in accordance with the values of respective ones of the bits of the second bitmap, identifying a second sequence of graphical code word symbols from the selected ones of the partitioned halftone image blocks, and extracting information from the second sequence of graphical code word symbols" as cited in claim 21.

In addition, the examiner has not discover prior art teaching the subject matter during the application prosecution. Thus, it is believed that the claimed feature is a unique feature in the invention and is suggested to be allowed for claims listed above.

Claims 11 and 29 recite identical features as claim 1. Claims 20 and 35 recite identical features as claim 12. Thus, claims 11, 20, 29 and 35 and the corresponding dependent claims are also allowable if these claims are clear of the rejections set forth above.

#### ***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Kau whose telephone number is 571-270-1120 and fax number is 571-270-2120. The examiner can normally be reached on M-F, 8:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/STEVEN KAU/  
Primary Examiner, Art Unit 2625  
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